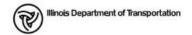






- Introductions
- Study Overview in Brief
- Detailed Discussions
 - » Stakeholder Outreach
 - » Facilities Inventory
 - » Commodity Flows
 - » Lock and Dam Closure
 - » Funding Options
- Next Steps



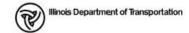


Illinois Marine Transportation System Plan and Economic Impact Analysis Study





- Stakeholder Engagement
- System and Volume Information
- User and Operator Information
- Needs Assessment and Strategy Development
- Benefits of Action





Steering Committee Role

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN



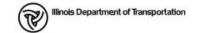
Guide Plan Development



Review Draft Deliverables









Federal and State Agencies

Maritime Stakeholder Outreach

- » Verify and learn about stakeholder needs
- » Port Districts, Shippers, Carriers, Federal & State Agencies, Agriculture,
- » ETC.

Regional Forums

- » Educate public
- » Learn about local priorities





Overview of History of Illinois Waterway

» Provide a history of IMTS from the pre-Columbian era to modern times

Inventory of Facilities, Conditions, and Connections

» Inventory port facilities

Commodity Flows and Volumes

» Provide information on flows using IMTS and other modes that support the IMTS



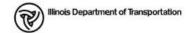


Industry Profiles of Primary MTS Shippers and Receivers

» Provide analysis of facilities and commodity flows within major commodities and industry groups

Inventory of Carriers and Operators

» Identify carriers and operators, and learn about their daily experiences on the IMTS



Marine Transportation Creates Economic Value

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

One 15 Barge Tow is Equivalent To

- 216 Rail Cars and 6 Locomotives
- 1,050 Large Semi Tractor-**Trailers**

One Gallon of Fuel Moves 1 Ton of Cargo

- 616 Miles by Water
- 478 Miles by Rail
- 150 Miles by Truck







Measuring Economic Value

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

IMTS reliant industry effects on State's economy

Port contribution to state economy



Port contribution to regional economy





Needs Assessment and Strategy Development

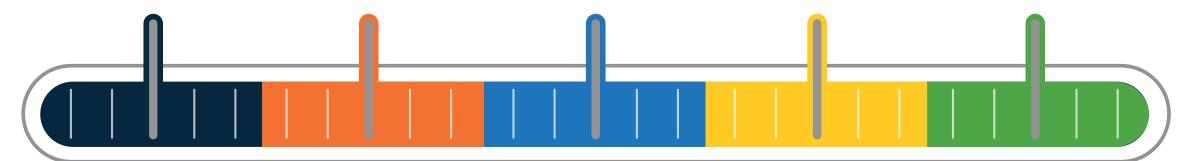
ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

SWOT
Analysis
(Port, Waterway,
and SystemLevels)

Critical
Needs and
Potential
Responses

Peer State Programs and Best Practices Programmatic
Action Plan
Recommendations
and Responsibilities

Funding and Financing





Benefits of Recommended Action Plans

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Benefit-Cost Analysis

- » Safety
- » State of Good Repair
- » Economic Competitiveness
- » Environmental Protection
- » Livability

Recommended Programmatic Action Plans

» Develop near-term and long-range programmatic action plan





Questions?







Stakeholder Outreach to Date







Stakeholder Outreach to Date

21 Stakeholder Engagements

- 17 in person
- 4 via phone

Stakeholders

- Port Districts
- Agriculture Industry
- Chemical Industry
- Manufactures
- Aggregate Industry
- Tow Operators





Themes to Date

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Lack of designated state funding

» Comparative example:Missouri program

Role in economic development

Consolidation

Flooding









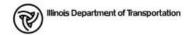






Assistance with grants

State leadership Environmental permitting for port dredge material



Themes to Date

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Significance of freight cost & performance to economic health, competitiveness and diversity

Access routes: farm & plant to terminal

Locks and dams

- » Modernization
- » Closures





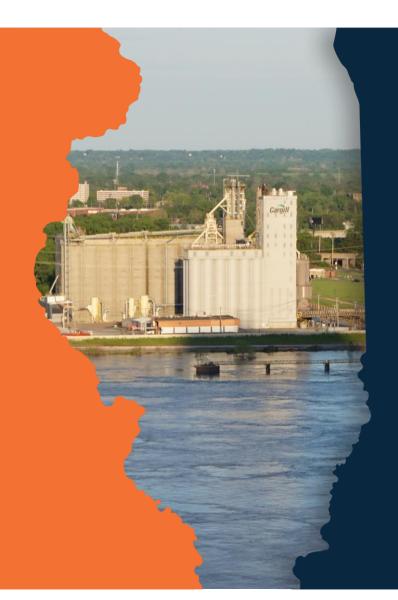






Unique advantages of Illinois River System Truck weights and configuration





Inventory of Facilities, Conditions, and Connections







Illinois Marine Transportation System Overview

- 1,118 miles of navigable inland waterways
- 19 Public Port Districts
- Over 350 private terminals
- Ferries, Water Taxis, Cruises
- 9% of the state's freight tonnage is moved via the IMTS
- 2017 Waterborne Freight totaled:
 - 90.6 million tons



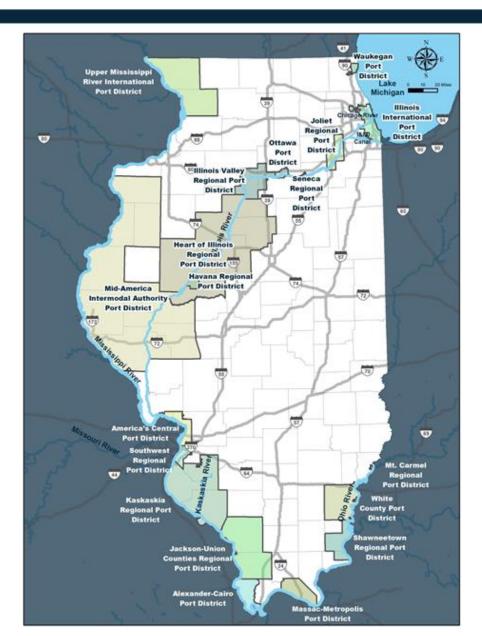




19 Public Port Districts

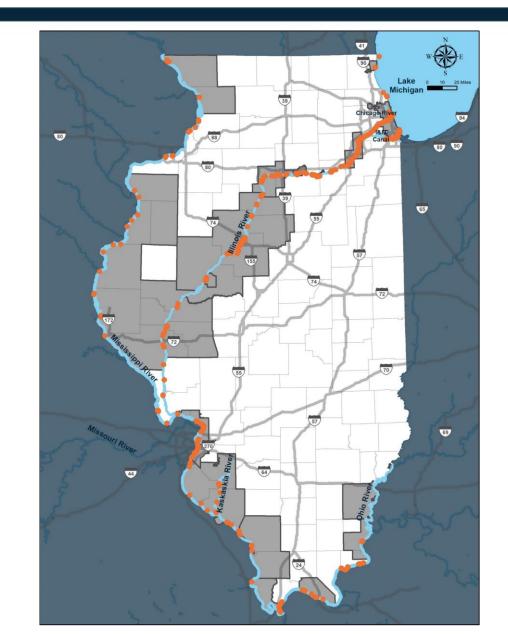
- 4 Navigable Rivers
 - » Mississippi
 - » Ohio
 - » Illinois
 - » Kaskaskia
- Chicago Area Waterway System (CAWS)



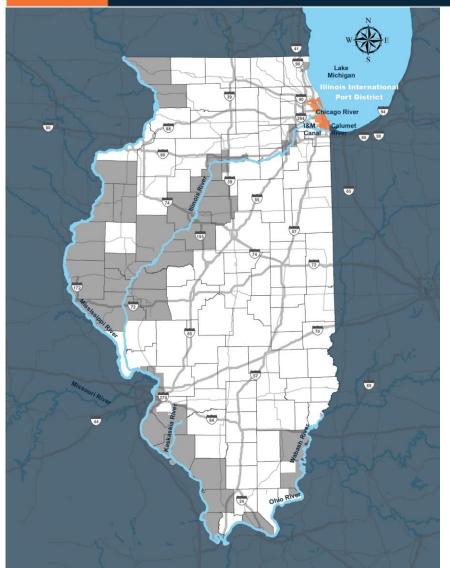


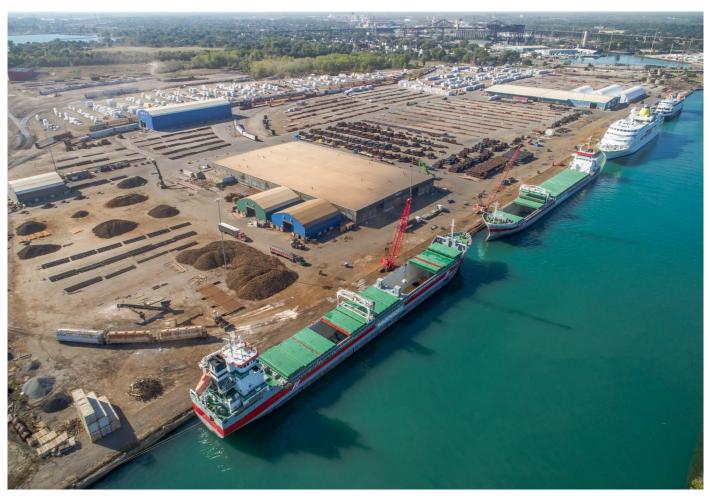


- Over 350 Terminals
- Majority Private
- Types of Commodities
 - » Grain
 - » Sand
 - » Gravel
 - » Chemicals
 - » Fertilizer
 - » Fuel



Illinois International Port Authority









Facility Inventory Example: Illinois International Port District

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

River Length

- » Chicago Sanitary & Ship Canal, and Chicago River 10 Miles
- » Chicago River North Branch 6.5 Miles
- » Calumet River and Channel 13.5 Miles

Terminals

77 located within the Port District

Road Connection

» I-294, I-290, I-90, I-94, I-80, I-57, I-55

Rail Connection

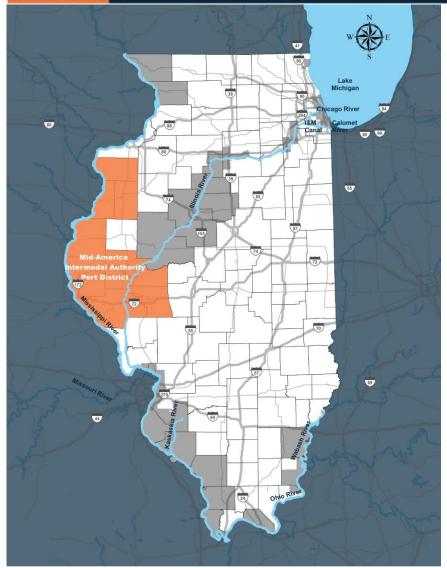
» Served by six out of seven Class I Railroads

Major commodities

- » Sand and Gravel
- » Base Metals
- » Fuel Oils



Mid-America Intermodal Authority Port District









Facility Inventory Example: Mid-America Intermodal Authority Port District

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

River Length

- » Mississippi River 172 Miles
- » Illinois River 70.5 Miles

Terminals

38 located within the Port District

Road Connection

» I-172, I-72, IL-164, IL-135, IL-106, IL-104, IL-99, IL-96, IL-75, US-67

Rail Connection

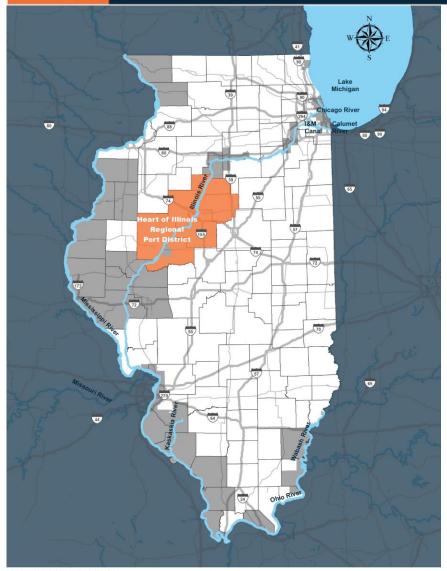
» Burlington Northern Santa Fe and Norfolk Southern

Major commodities

- » Food
- » Fertilizer



Heart of Illinois Regional Port District









Facility Inventory Example: Heart of Illinois Regional Port District

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

River Length

» Illinois River 90.5 Miles

Terminals

» 30 located within the Port District

Road Connection

» I-474, I-155, I-74, I-39, IL- 100, IL 40, IL -26, IL-29, IL-9 US-136,

Rail Connection

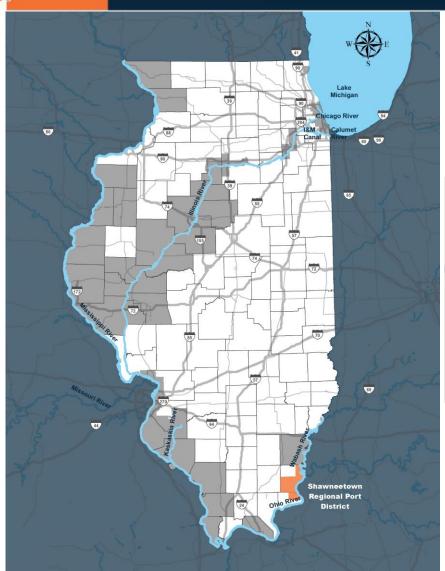
» Burlington Northern Santa Fe , Norfolk Southern, Union Pacific, and Canadian National

Major commodities

- » Food
- » Sand and Gravel



Shawneetown Regional Port District









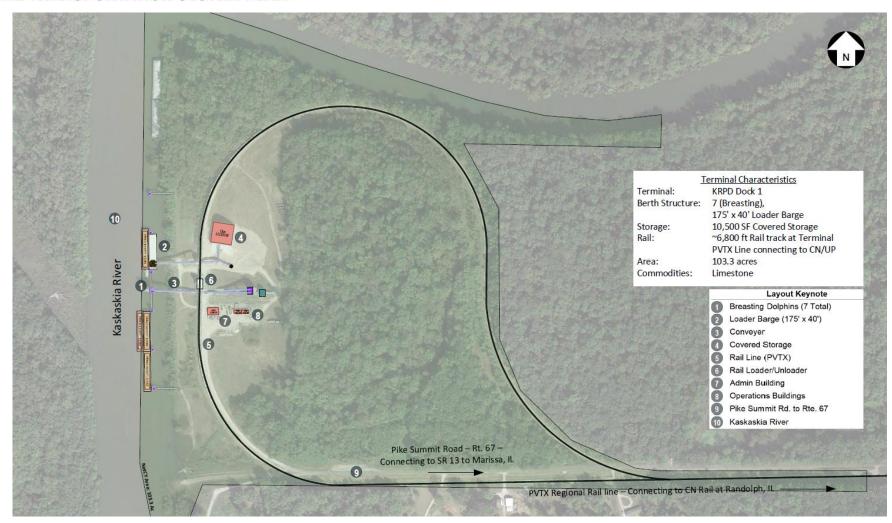
Facility Inventory Example: Shawneetown Regional Port District

- River Length
 - » Ohio River 11 Miles
- Terminals
 - » 6 located within the Port District
- Road Connection
 - » IL-1, IL-13
- Rail Connection
 - » There is no rail access
- Major commodities
 - » Food





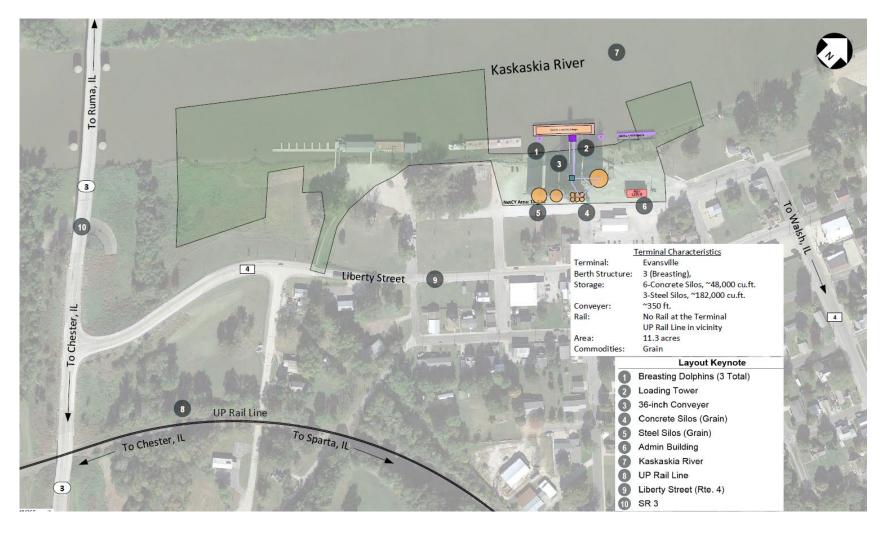
Facility Inventory: KRPD D1 PRIME







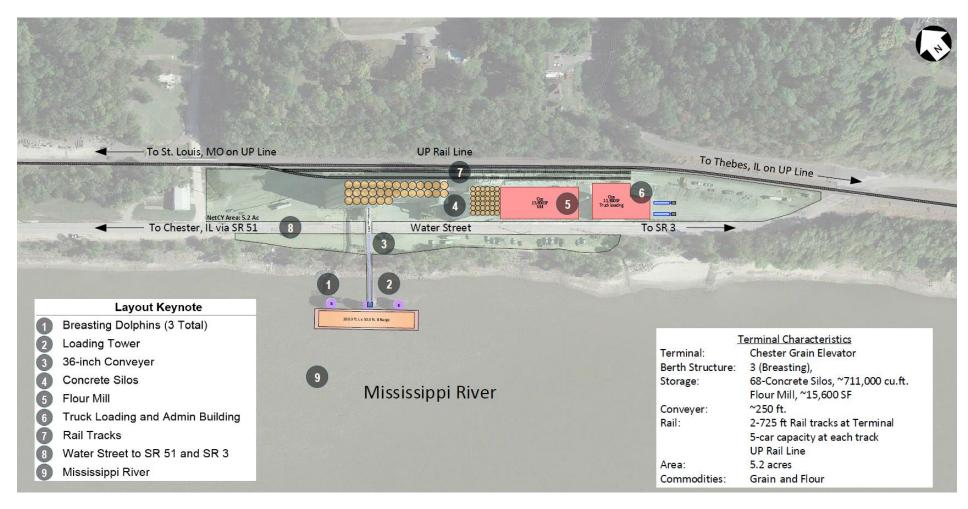
Facility Inventory: Evansville PRIME







Facility Inventory: Chester Grain Elevator PRIME





Questions?







Commodity Flows Analysis





Commodity Flows Analysis Topics

- Commodity Flows Information Sources and Analysis
- Top Level View of 2017 Commodity Flows
- Forecast by Waterway
- Top Commodity Forecasts and Regional Distribution
- Summary of Total Volume Forecasts and Regional Growth
- Summary of Changes in Direction of Flows



-()-

Commodity Flows Information Sources and Analysis

- Army Corps of Engineers Waterborne Commerce of the U.S.
 - » State-to-state commodity flows (no waterway segment detail)
 - » Waterway segments:
 - ✓ Illinois River; Chicago area; segments of the Mississippi, Ohio and Tennessee Rivers.
 - ✓ Direction of movement, and shipments versus receipts.
 - » Reconcile State and Waterway data (for state non-disclosed data)
- County origins and destinations derived from Transearch
- U.S. DOT Freight Analysis Framework (FAF) forecasted freight flows:
 - » Growth rates applied to 2017 Army Corps data





ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Total 2017 Tons by Waterway and Direction

Direction

Waterway	Inbound	Outbound	Inb+Outb
Chicago	9,531,080	3,767,503	13,298,583
Illinois River	10,557,733	38,352,196	48,909,928
Kaskaskia	53,813	5,411,996	5,465,809
Mississippi	1,500,000	5,900,000	7,400,000
Ohio	200,000	7,300,000	7,500,000
Total	21,842,626	60,731,695	82,574,320

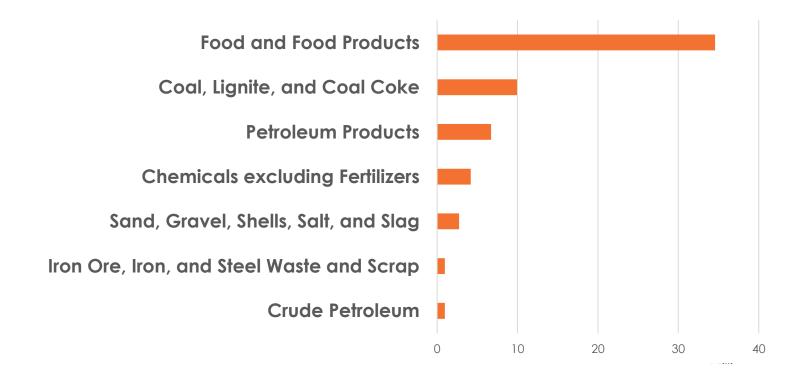




Top Illinois Commodity Flows on Waterways

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Illinois Out-of-State Top Shipments in 2017 in Millions of Tons



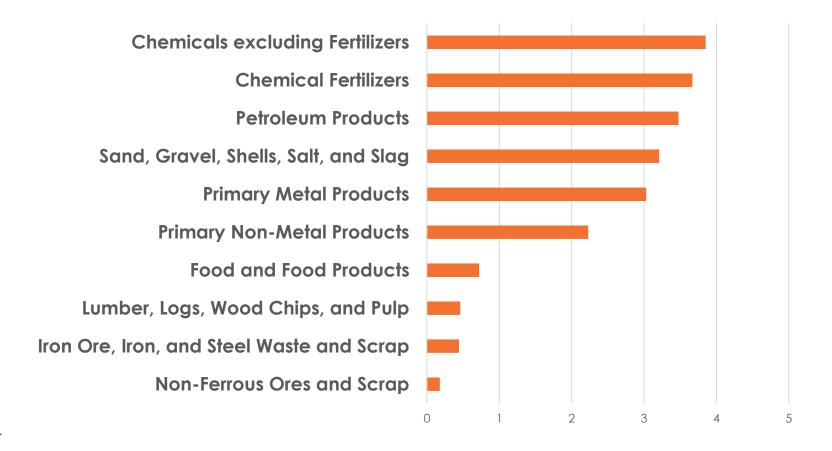


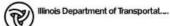


Top Illinois Commodity Flows on Waterways

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Top Illinois Inbound Volumes in 2017 in Millions of Tons



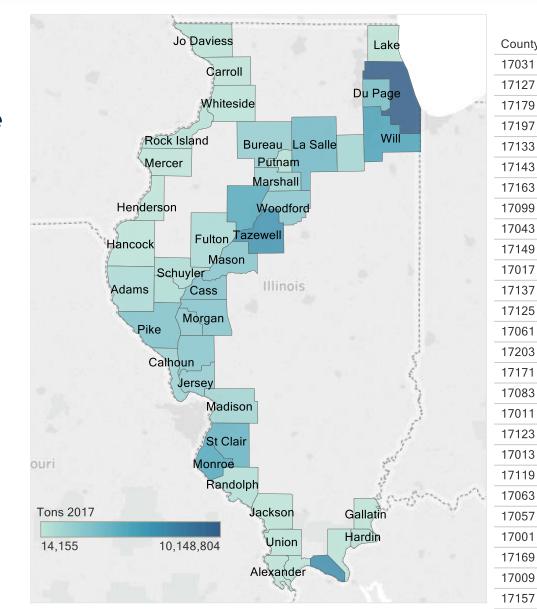


Illinois Waterway 2017 County Freight Tonnage

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

The county distribution of total inbound and outbound tonnage shows the highest concentrations in:

- The Chicago region (Cook, Will and Du Page counties in the top 10 counties),
- Along the Illinois River
- In St. Clair and Monroe Counties along the Mississippi River.



Direction

10.148.804

6,892,553

6,460,250

5.297,602

4,925,156

4,738,100

4.096.308

3,623,095

3.149.779

2.840.760

2,707,735

2.653.190

2,566,380

2.523.674

2,409,395

2.276.804

1,997,589

1,846,630

1.592.497

1,533,770

1.325.645

1,168,470

917.691

868,294

730,672

643,148

540.65340

Inb+Outb

County Name

Cook

Will

Massac

Tazewell

Monroe

Peoria

St Clair

La Salle

Du Page

Pike

Cass

Morgan

Mason

Greene

Scott

Jersey

Bureau

Marshall

Calhoun

Madison

Grundy

Fulton

Adams

Brown

Schuyler

Randolph

Woodford

17203

17063

17057

17009

17157

17031



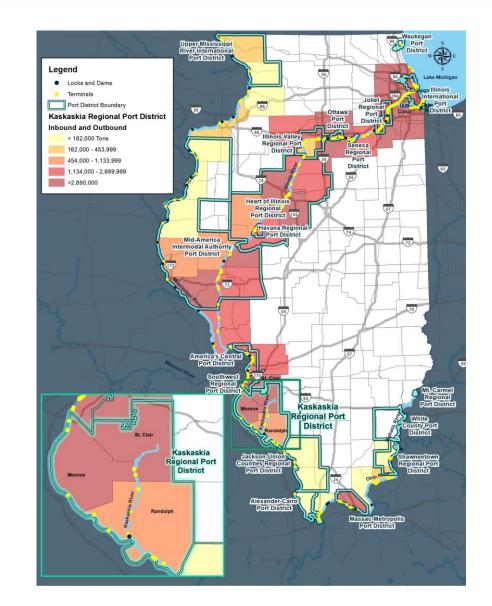


County Tonnage, Port Districts & Facilities

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Example: Kaskaskia Regional Port District

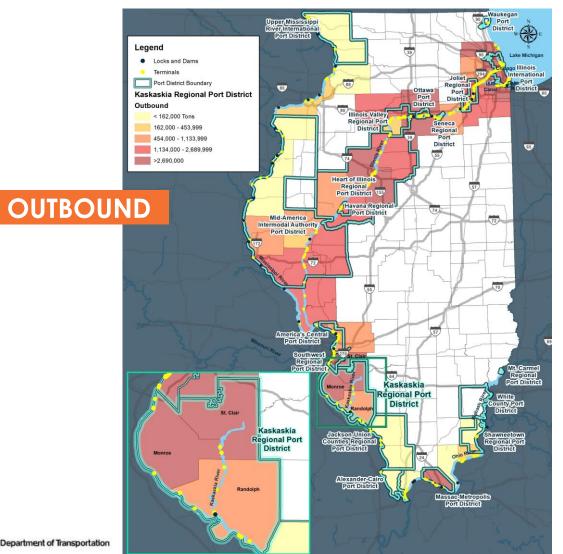
- Primarily outbound tonnage
- Large volume of (and exposure to) coal
- Other commodities include grain, steel, fertilizer, limestone
- → Facilities visible in inset map

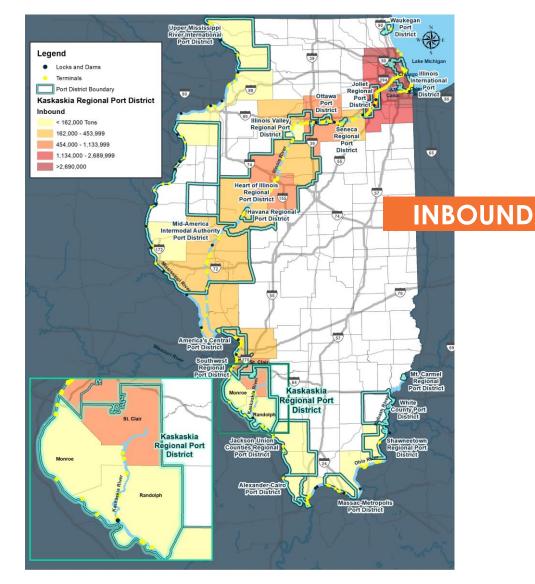




Port Districts & County Tons: Outbound/Inbound

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN







Illinois Waterways Growth in Freight, 2017 to 2045

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Forecast of Growth in Tons by Waterway

Direction	Waterway	Tons 2017	Tons 2045	Tons 2045-2017	Pct Growth	Share of Change
Inbound	Illinois	21,842,626	30,990,943	9,148,317	41.9%	100.0%
	Chicago	9,531,080	13,035,613	3,504,533	36.8%	38.3%
	Illinois River	10,557,733	15,639,473	5,081,740	48.1%	55.5%
	Kaskaskia	53,813	84,902	31,089	57.8%	0.3%
	Mississippi	1,500,000	1,968,490	468,490	31.2%	5.1%
	Ohio	200,000	262,465	62,465	31.2%	0.7%
Outbound	Illinois	60,731,695	57,957,870	-2,773,824	-4.6%	100.0%
	Chicago	3,767,503	3,540,026	-227,477	-6.0%	8.2%
	Illinois River	38,352,196	42,246,970	3,894,774	10.2%	-140.4%
	Kaskaskia	5,411,996	2,774,374	-2,637,622	-48.7%	95.1%
	Mississippi	5,900,000	6,557,011	657,011	11.1%	-23.7%
	Ohio	7,300,000	2,839,489	-4,460,511	-61.1%	160.8%
Inb+Outb	Illinois	82,574,320	88,948,813	6,374,493	7.7%	100.0%
	Chicago	13,298,583	16,575,639	3,277,056	24.6%	51.4%
	Illinois River	48,909,928	57,886,442	8,976,514	18.4%	140.8%
	Kaskaskia	5,465,809	2,859,276	-2,606,533	-47.7%	-40.9%
	Mississippi	7,400,000	8,525,501	1,125,501	15.2%	17.7%
	Ohio	7,500,000	3,101,955	-4,398,045	-58.6%	-69.0%

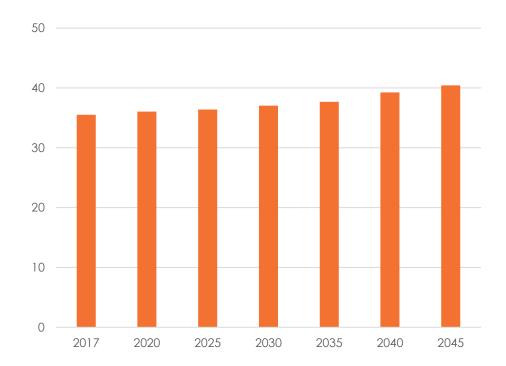


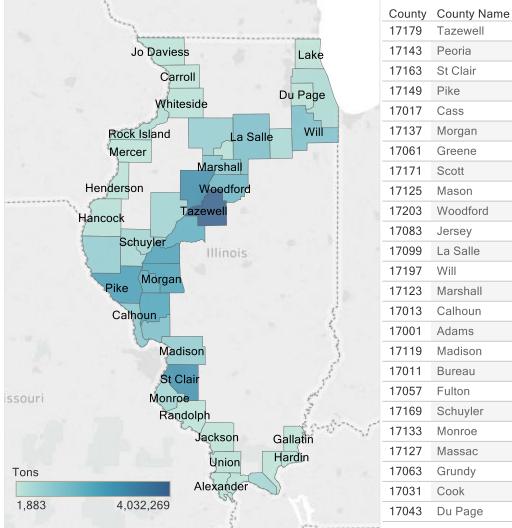


Outbound Food and Food Products

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Volume Forecast Tons 000



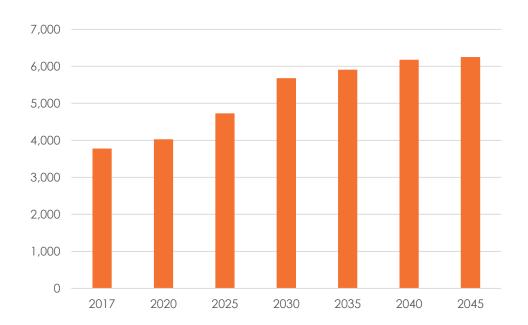


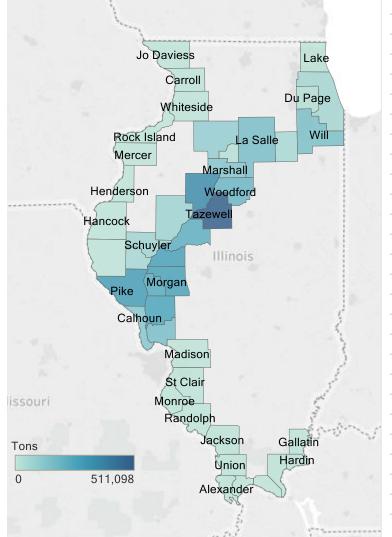
County	Ocumy Manne	
17179	Tazewell	4,032,269
17143	Peoria	2,747,879
17163	St Clair	2,644,910
17149	Pike	2,278,271
17017	Cass	2,149,405
17137	Morgan	2,100,891
17061	Greene	2,036,458
17171	Scott	1,844,865
17125	Mason	1,728,415
17203	Woodford	1,529,429
17083	Jersey	1,257,981
17099	La Salle	1,241,731
17197	Will	1,176,213
17123	Marshall	1,035,979
17013	Calhoun	992,042
17001	Adams	810,499
17119	Madison	799,847
17011	Bureau	752,240
17057	Fulton	555,670
17169	Schuyler	508,072
17133	Monroe	503,236
17127	Massac	478,096
17063	Grundy	377,948
17031	Cook	282,462
17043	Du Page	55,600

Inbound Fertilizer

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Volume Forecast Tons 000



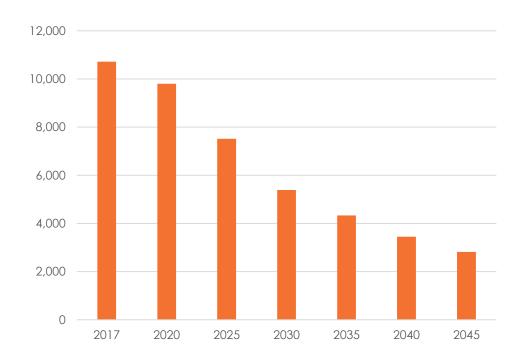


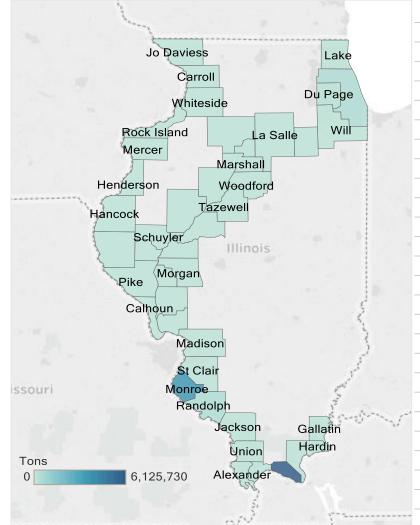
County	County Name	
17179	Tazewell	511,098
17143	Peoria	348,299
17149	Pike	288,775
17017	Cass	272,441
17137	Morgan	266,292
17061	Greene	258,125
17171	Scott	233,840
17125	Mason	219,080
17203	Woodford	193,858
17083	Jersey	159,451
17099	La Salle	157,392
17197	Will	149,087
17123	Marshall	131,312
17013	Calhoun	125,743
17011	Bureau	95,348
17057	Fulton	70,432
17169	Schuyler	64,399
17031	Cook	48,144
17063	Grundy	47,906
17043	Du Page	17,400
17001	Adams	
17119	Madison	
17127	Massac	
17133	Monroe	
17163	St Clair	



ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Volume Forecast Tons 000





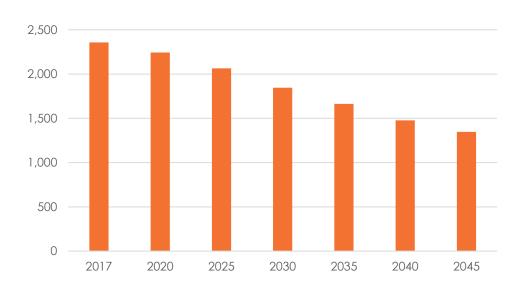
County	County Name	
17127	Massac	6,125,730
17133	Monroe	3,643,094
17031	Cook	317,788
17043	Du Page	62,553
17083	Jersey	978
17013	Calhoun	771
17099	La Salle	466
17197	Will	441
17011	Bureau	282
17063	Grundy	142
17179	Tazewell	66
17143	Peoria	45
17125	Mason	28
17203	Woodford	25
17123	Marshall	17
17057	Fulton	g
17149	Pike	1
17017	Cass	1
17137	Morgan	1
17061	Greene	1
17171	Scott	1
17169	Schuyler	C
17001	Adams	
17119	Madison	
17163	St Clair	

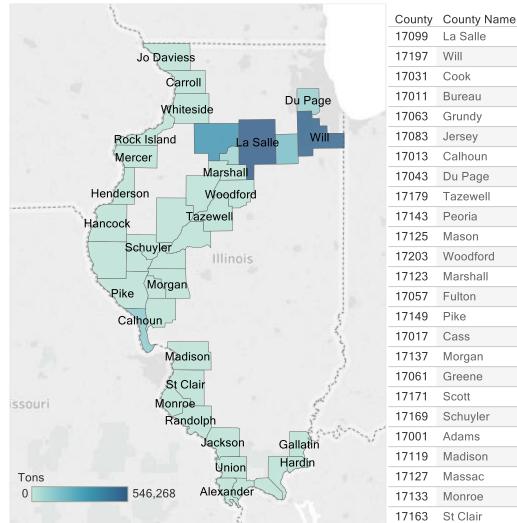


Outbound Fuel Oils

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Volume Forecast Tons 000





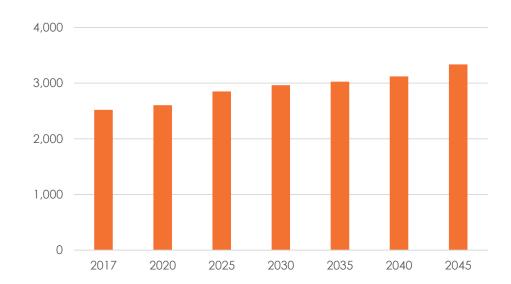
	County	County Maine	
	17099	La Salle	546,268
	17197	Will	517,445
	17031	Cook	378,382
	17011	Bureau	330,929
d	17063	Grundy	166,268
	17083	Jersey	143,722
	17013	Calhoun	113,339
	17043	Du Page	74,481
	17179	Tazewell	5,872
	17143	Peoria	4,001
	17125	Mason	2,517
	17203	Woodford	2,227
	17123	Marshall	1,509
	17057	Fulton	809
	17149	Pike	528
	17017	Cass	499
	17137	Morgan	487
	17061	Greene	472
	17171	Scott	428
	17169	Schuyler	118
-	17001	Adams	
	17119	Madison	
	17127	Massac	
	17133	Monroe	
	17163	St Clair	

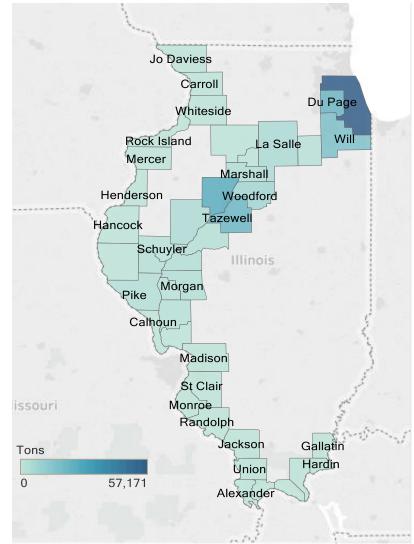


Inbound Basic Chemicals

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Volume Forecast Tons 000





County	County Name	
17031	Cook	57,171
17143	Peoria	25,568
17179	Tazewell	20,942
17043	Du Page	20,662
17197	Will	16,278
17203	Woodford	6,564
17099	La Salle	4,563
17057	Fulton	3,809
17123	Marshall	3,116
17137	Morgan	2,814
17017	Cass	2,777
17149	Pike	2,495
17125	Mason	2,151
17169	Schuyler	2,042
17061	Greene	1,992
17063	Grundy	1,810
17171	Scott	1,660
17011	Bureau	532
17083	Jersey	353
17013	Calhoun	213
17001	Adams	
17119	Madison	
17127	Massac	
17133	Monroe	
17163	St Clair	

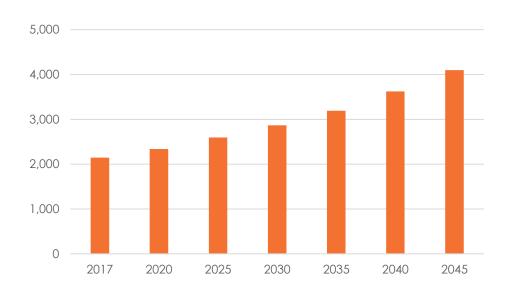


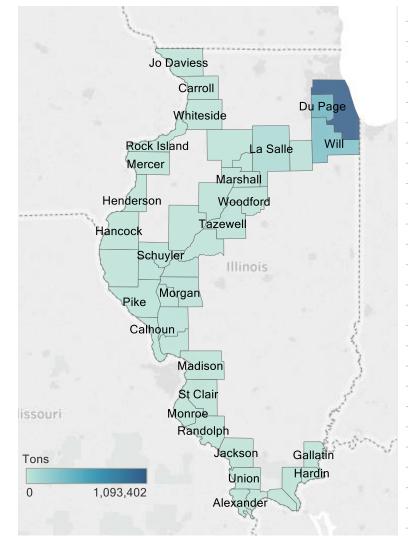


Inbound Non-Metallic Mineral Products

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Volume Forecast Tons 000





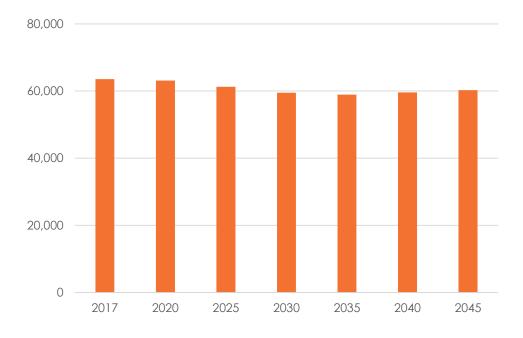
County	County Name	
17031	Cook	1,093,402
17043	Du Page	395,159
17197	Will	313,604
17099	La Salle	87,903
17063	Grundy	34,867
17137	Morgan	25,564
17017	Cass	25,221
17149	Pike	22,660
17143	Peoria	20,922
17169	Schuyler	18,553
17061	Greene	18,091
17179	Tazewell	17,136
17171	Scott	15,078
17011	Bureau	10,257
17083	Jersey	7,442
17203	Woodford	5,372
17013	Calhoun	4,497
17057	Fulton	3,117
17123	Marshall	2,549
17125	Mason	1,760
17001	Adams	
17119	Madison	
17127	Massac	
17133	Monroe	
17163	St Clair	



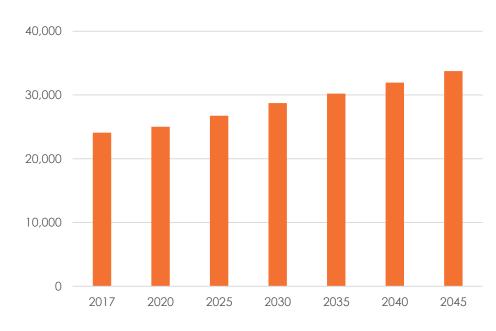
Total Forecasted Volumes

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Outbound Tons 000



Inbound Tons 000



- Outbound volumes are double those of inbound but slightly declining, while inbound volumes are projected to grow
- Changes are largely related to declines in energy products





Small Net Declines in Outbound Volumes

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Total Tons 000



Growth is led by Food, Sand and Gravel and Non Metallic Mineral Products

Large declines are in Energy Products



Commodity Detail

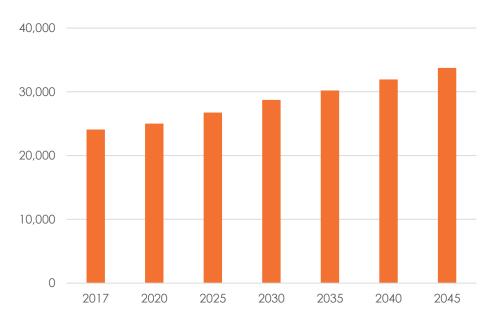
	2017	2045	Growth
Total	63,565,923	60,270,554	-3,295,369
Food	35,522,074	40,429,056	4,906,982
Sand and Gravel	4,618,904	5,829,350	1,210,446
Non Metal Mineral Products	302,130	628,764	326,634
Fertilizers	326,470	552,264	225,794
Articles Base Metal	139,628	309,996	170,368
Base Metals	548,750	711,129	162,379
Non Metallic Minerals	385,627	537,878	152,251
Metallic Ores	51,190	69,128	17,938
Chemical Products	0	0	0
Wood Products	0	0	0
Gasoline	83,180	65,904	-17,276
Crude Petroleum	907,670	873,699	-33,971
Basic Chemicals	3,716,670	3,032,741	-683,929
Coal NEC	3,889,011	3,069,495	-819,516
Fuel Oils	2,357,277	1,347,388	-1,009,889
Coal	10,717,342	2,813,762	-7,903,580



Growth in Inbound Volumes

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Total Tons 000



Growth is led by Fertilizers, Base Metals, Non Metallic Mineral Products and Sand and Gravel

Declines are in Energy Products



Commodity Detail

	2017	2045 (Growth
Total	24,076	33,744	9,667
Fertilizers	3,780	6,252	2,472
Base Metals	3,396	5,718	2,323
Non Metal Mineral Products	2,146	4,098	1,952
Sand and Gravel	4,294	5,636	1,341
Basic Chemicals	2,520	3,338	818
Food	761	1,551	789
Wood Products	341	899	557
Articles Base Metal	299	667	367
Chemical Products	97	439	342
Non Metallic Minerals	1,432	1,701	268
Metallic Ores	307	414	108
Crude Petroleum	0	0	0
Coal	87	22	-65
Gasoline	374	11	-363
Coal NEC	2,199	1,756	-443
Fuel Oils	2,043	1,244	-799

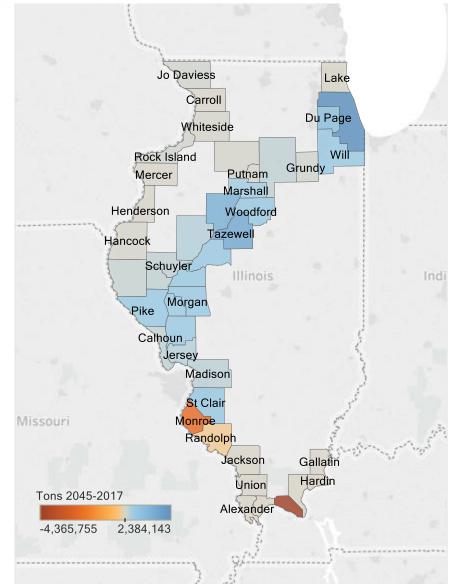


Growth in Volumes 2017 to 2045 by County

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Growth is highest in Chicago region and central Illinois counties.

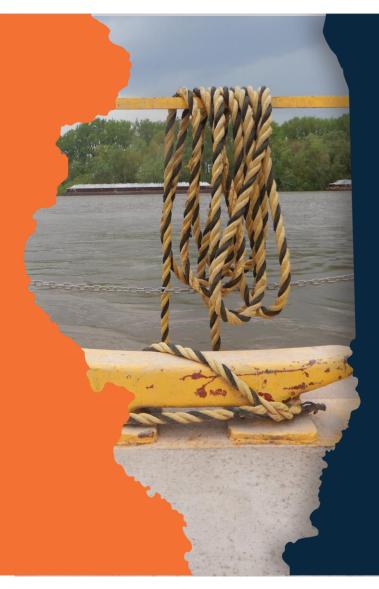
Declines are most significant in Lower Mississippi and Ohio River counties due to decreases in energy products



		Direction
County	County Name	Inb+Outb
17031	Cook	2,384,143
17179	Tazewell	1,643,768
17143	Peoria	1,371,995
17043	Du Page	892,913
17203	Woodford	592,744
17163	St Clair	582,458
17149	Pike	571,116
17017	Cass	552,552
17125	Mason	552,451
17137	Morgan	543,344
17197	Will	537,997
17061	Greene	502,763
17171	Scott	450,773
17123	Marshall	371,838
17057	Fulton	247,102
17083	Jersey	241,774
17119	Madison	203,277
17013	Calhoun	185,565
17169	Schuyler	175,631
17099	La Salle	168,957
17009	Brown	161,292
17001	Adams	130,012
17161	Rock Island	64,845
17063	Grundy	64,736
17085	Jo Daviess	57,724
17011	Bureau	31,806
17195	Whiteside	27,794
		5

Direction

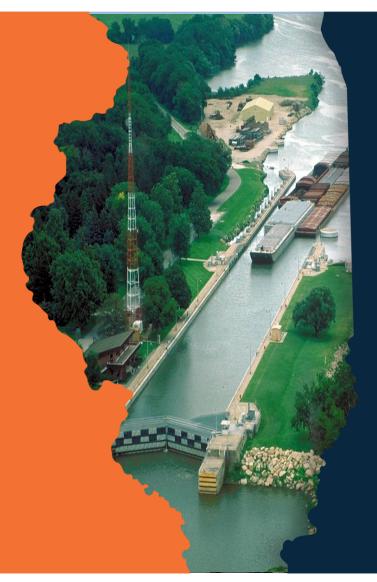




Questions?







Illinois Waterway Consolidated Lock Closures

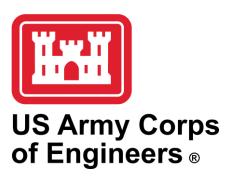




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Upcoming Lock and Dam Closure

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN



2019 Schedule (may change)

- » Starved Rock & Marseilles Lock and Dam
 - ✓ Partial Closure June 1- July 3 and July 8-Aug 16
 - ✓ Full Closure Aug 16- Aug 30

Supply Chain Stakeholder Comments

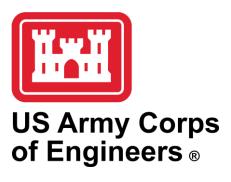
- » Pre-positioning inventory
 - ✓ But some products may not ship
- » Planning on longer outage
- » Concern with harvest in already difficult year



-(2)-

Upcoming Lock and Dam Closure

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN



- **2020** (may change)
 - » LaGrange Lock and Dam
 - ✓ Full closure July 1- Sept 30
 - » Peoria Lock and Dam
 - ✓ Full closure Mid-July/Early Aug 60+ days
 - » Starved Rock Lock and Dam
 - ✓ Full closure July 1 Oct 30
 - » Marseilles Lock and Dam
 - ✓ Full closure July 1 Sept. 30
 - » Dresden Island & Brandon Road Lock and Dam
 - ✓ Restriction period 90+ days
 - ✓ Full closure 14 days





Upcoming Lock and Dam Closure

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN



- **2023** (may change)
 - » Dresden Island & Brandon Road Lock and Dam
 - ✓ Full closure July 1- Sept 30



Funding Options





Illinois Port Facilities Funding Support Programs

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

Federal

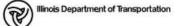
- Army Corps of Engineers Work Program (navigable waterways)
- USDOT federal gas tax funds (highway access)
- Transportation Grants (BUILD, INFRA, Marine Highway, Port Infrastructure Development)
- Economic Grants / Revenue Enhancement (USDA Opportunity Zone, FTZ designation)
- Innovative finance / loan programs (TIFIA, RRIF, PPP, etc.)

State

- IL Capital Bill / provisions and expectations
- DCEO funding (port revolving loan & others)
- Highway and rail program expenditures

Public port self-funding through revenues

Private investment (marine terminals, railroads, processing and industrial facilities, etc.)



Federal Opportunity Zone Program

ILLINOIS MARINE TRANSPORTATION SYSTEM PLAN

- US Economic Development Administration (EDA) grant program enhanced with major private investment incentives
- Strategic grants for job creation, leveraging private investment in distressed areas
- \$13 ml. grants to 22 projects since FY2018; awards generally 2/3 rural, 1/3 urban
- 50/50 cost share but have done 80/20
- Eligible: States, local public agencies, port authorities; not private parties
- → Private incentive: zero federal tax on profits if held 10 years (typically via investment fund), plus upfront breaks





Next Steps





Next Steps

